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An agenda for the Alps based on structuration theory

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# Cooperation for climate adaptation in tourism

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- 1 In order to implement adaptation measures to climate change, which are of increasing importance in alpine tourism communities, various stakeholders both from private as well as from public organizations are forced to pool their resources and act collectively. While this sounds like a rather straightforward thing to do, many initiatives in this direction have failed in the past due to a broad variety of factors (see e.g. Lazaretti, Petrillo, 2006). If we want to ensure that such initiatives will be more successful in the future, a better understanding of what enables and hinders the concrete implementation of cooperative schemes of action is of substantial importance (see e.g. Novelli *et al.*, 2006). In the more recent past a substantial body of work based on different approaches has been devoted to explaining why and how cooperative initiatives can be implemented in different context, resorting e.g. to the social entrepreneurship concept, to theories on social network-creation, or to game-theoretical backgrounds. Within the scope of the paper at hand, we will try to give an explanation by building upon Giddens' structuration theory (Giddens, 1984). In order to unravel some of the major enablers and barriers to cooperation within this theoretical framework, both individually driven as well as group specific insights will have to be considered. While individual actions often have a psychological connotation, the structural aspects of social actions can best be explained from a sociological point of view, e.g. through structuration theory. Both together shall help us to better understand how cooperation could be enhanced, and how barriers to cooperation can be dismantled in the context of climate change adaptation.
- 2 Section one starts off with an introduction to the concept of cooperation and its link to structuration theory. Following this theoretical disposition, section two highlights some central issues regarding the specificities of tourism societies in the Alps. Section three is devoted to the discussion of concrete cooperative climate change adaptation initiatives in the tourism context, based on insights from Engelberg (Switzerland). In section four, the aforementioned aspects are brought together in a contextual frame in order to analyze

how both agency and structure can influence the willingness of a tourism-based community to implement cooperative initiatives related to climate change adaptation measures, before section five concludes with some general insights and ideas for further research.

## Cooperation from a structuration-theoretical point of view

- 3 Structuration as a theoretical approach towards understanding how social action takes place within a certain “time-space” frame under consideration of individual actors has been proposed by English sociologist Anthony Giddens at the end of the 1970s as a response to the dominance of (post-) functionalistic theorems in the wake of Parson’s work after WW II. Giddens points to the reciprocal dependency between the structure, which he defines as “the rules and resources that act as common interpretative schemes in a particular social system” (Calhoun *et al.* 2007, pp. 221) and the actions by individuals within this system. Further on, Giddens highlights the fact that sociological reasoning will never be able to describe society and social action in a quasi natural scientific way, since theories and explanations forwarded by sociologists will as a side-effect always influence the activity of individuals - a kind of circular process Giddens calls the “double hermeneutic” (Giddens, 1979).
- 4 The central concept of interdependency between structure and action when trying to explain the nature of individual actions and activities in social contexts is further enhanced by the fact that we as human-beings often do not pursue activities in a fully rational way, but that rather our activities are directed along a line of action which is either expected from us or is given by the structures we act in (e.g. Mair, Martí, 2006). Besides constraining and directing our activity, social structures can also function in an enabling manner, providing individuals with common frames of meaning and rules within which productive interaction can take place (Giddens, 1984).
- 5 As a central prerequisite for cooperation, and in perfect accordance with the propositions above, we can set the action-related independence between the actors. At the same time, these actors must be in a state of communication with one another. According to Neuberger (1998), cooperation is a certain form of interaction carried out by socialized individuals within structural contexts, making cooperation dependent upon the situation the individual is situated in. Typically, cooperative behavior occurs voluntarily and in the absence of duress (Sullivan *et al.* 2008). Additionally, Neuberger (1998) distinguishes between different forms of cooperation, namely strategic cooperation versus more intuitive forms of cooperation (spontaneous, reactive, non-reflected cooperation). Synthesizing the main points out of these definitions while adding a personal emphasis on duration, we will use the following conceptualization of the term for the remainder of the paper (own definition): Cooperation describes an economic interaction with or without formal arrangements between two independent economic actors. It is rather long-term in its orientation is based on more than just one delimited project and includes the sharing of economic benefits between actors.
- 6 It is indispensable for cooperative actions in which public benefits arise from private involvement that the actors show a certain motivation to contribute to actions which do not exclusively benefit themselves. Within this context, both extrinsic and intrinsic

motivations to contribute to the provision of common goods are important – and often indispensable. This motivation is amongst other factors linked to the trustworthiness of other individuals involved to equally take action towards common goals, as climate adaptation on a regional scale. Only if motivation and trust – which themselves are not independent of the social environment within which individuals find themselves – are embedded into a broader social construct where social norms, sanctioning mechanisms and group control contribute to a pro-cooperative social setting, will lasting cooperation between actors be rendered possible (Fehr, Gintis 2007).

## Specificities of tourism-dependent societies in the Alps

- 7 In order to understand how cooperation between tourism actors influences the implementation of adaptation measures to climate change in alpine tourism areas, we will have to direct our attention briefly on some specificities of tourism-dependant societies in the Alps. In many ways, alpine tourism destinations in the Alps still show certain traits of what Wolf coined the “closed corporate community”, when describing the regional organization of mountain communities in the Andes (Wolf, in Viazzo, 1989). Cooperative actions, e.g. in order to manage the restricted resources for irrigation and grazing, have a long tradition in many of these communities (Ostrom, 1990). While many tourism destinations around the globe are recent creations on the “green field”, most alpine destinations in Europe have a history of at least 50 years, during which tourism activities have been a defining characteristic of both social and economic life. Throughout this span of time, tourism activities could build up and maintain a long-standing influence on the institutional functioning of the local community and the way other economic activities, such as agriculture and finance, are built around tourism activities (Simpson, Bretherton, 2009). In most European alpine tourism regions – especially in the German speaking part of the Alps – destinations are structurally built on a set of economically independent actors, who function without a clear hierarchy (Flagestad, Hope, 2001). Within these complex social systems, elected representatives, non-elected officials, exponents of non-governmental organizations – mostly committed to environmental issues – as well as very diverse players within what is broadly conceptualized as the civil society all exert a potential influence upon the management of common-pool resources (Reed 1999; Nordin, Svensson, 2007). It is in this context that cooperation for adaptation to climate change must be understood – with respect to both agency and structural issues.

## Climate adaptation in tourism systems

- 8 Following the publications of the Inter Governmental Panel on Climate Change from 1989 onwards (IPCC 2007), the research community has been quite successful on predicting possible consequences of climate change upon the tourism industry, with an above-average number of publications dealing with alpine regions (Nicholls, 2006 ; Patterson *et al.*, 2006). A clearly less prominent position has been attributed to possible adaptation strategies (as notable exceptions see Jopp *et al.*, 2010), while the implementation of these adaptation measures within specific tourism contexts has received almost no attention at all up to now. In a way this is not further astonishing, since in order to come up with

policy relevant strategies of how to implement these adaptation measures in destinations, different complex issues have to be taken into account. These encompass inter alia issues of destination management, destination governance and the cooperation of actors within tourism destinations (Nordin, Svenson 2007).

- 9 Within the specific context of alpine tourism destinations, climate change as an external peril shows some very distinct characteristics both with regard to the scientific fundamentals as well as to the following challenges (see Luthe *et al.*, 2012):
  - The public-good character of many adaptation measures, which leads to the peril of a constant underinvestment in potential adaptation measures.
  - The uncertainty to which extend and in what time-frame climate change at the local and regional scale will take place in the Alps, though many actors already perceive climate change as a true challenge.
  - The capacity of local tourism actors to grasp the importance of climate change induced changes, to cognitively and financially react to climate effects and to put into practice the necessary response-strategies.
- 10 In Engelberg, as an example of an internationally well-known tourism destination in the heart of the Swiss Alps, the view on how climate change may affect the tourism business in the next thirty years varies broadly. While the village of Engelberg itself lies at 1000 metres a.s.l. and relies on artificial snow-making to ensure downhill skiing activities from November through Mai, the main attraction of the destination in summer is the glacier environment on the slopes of the mountain Titlis. Both the CEO of the local cable-car company as well as the destination manager point to the further melting of the glacier-ice as the main danger for the local tourism system in the years to come, since especially the Asian guests from China and India, which make up almost 50% of the sales of the local cable-car company and visit Engelberg predominantly in summer, would react very sensitive to lacking snow and glacier-ice on Titlis. Since 90% of the businesses in the municipality of Engelberg are directly or indirectly dependent on income from the tourism sector (F. Füssenich, personal communication, 27.6.2012), it is not further astonishing that coordinated actions to counter climate-induced changes are high on the agenda of both the destination manager as well as the CEO of the cable-car company. While for certain actors in the region the prevention of damages to the existing tourism infrastructure is prioritized (M. Odermatt and E. Hess, personal communication, 27.6.2012), others see the changes attributed to climate change in the broader perspective of a quest to more integrative destination structures and a upgrading of tourism offers (N.Patt, personal communication, 26.6.2012). In both cases, the cooperation between private and public actors as well as between tourism representatives and the broader public are estimated to be paramount for the envisaged measures and strategies to be successful (F. Füssenich, personal communication, 27.6.2012).

## Discussion of agency and structure for climate change adaptation

- 11 In order for cooperative initiatives for climate adaptations to be successful, individual actors within a tourism region must first of all find a motivation to engage in activities which lead to climate change adaptation. For this to be possible, information must be provided in order to lay open the possible (future) vulnerability of the individual actors

as well as the vulnerability of the system as a whole. The different actors with their different backgrounds will have to find a minimal denominator to take action within the destination. Based on different experiences possibly leading to the proposition of different measures and the expression of different degrees of responsiveness – mostly based on different degrees of vulnerability – they will have to collectively define a common set of strategies. This will only work if certain institutionalized forms of exchange within the destination exist, allowing to form what Adger (2003) coined the “social capital for collective action”. The joint formation of social capital is of central importance since many of the resources affected by climate change are – as we have seen – public goods, and cooperative approaches to the implementation of climate change adaptation measures are therefore most promising. This is further supported by the reasonable assumption that the aggregated knowledge of the regional actors is most likely to come somewhere close to a comprehensive understanding of how climate change will affect the entire regional (touristic) production system as well as the individual parts of this system.

- 12 In order to overcome the free-riding problematic linked to cooperation, both factors with regard to agency and structure, respectively, must be taken into consideration. The actor-based disposition to take up action with regard to climate change can be promoted – at least to a certain extent – through information and awareness-building campaigns, as well as through direct incentive setting (Wageman, Baker, 1997). These measures have a direct influence upon the motivational disposition of the individual to take up concrete actions and to cooperate with others in order to achieve goals, which the individuals alone could not accomplish. Following the same rationale, in order to enhance trust between individuals and allow them to cooperate in a more pro-active and mutually beneficial way, concrete trust-building activities can be initiated (Jones, George, 1998). The most important factor in this respect is simply to make people familiar with one another and install formats within which the individuals can repeatedly meet and exchange views.
- 13 These initiatives directed at the cooperative behavior of the individual actors will however only achieve sustained success if the social and economic structures in which the individuals live and act back their activities towards supporting climate adaptation measures. In order for social structures to be built-up in a meaningful way with respect to maintaining and supporting the cooperative implementation of certain measures, structural aspects must also be taken into account. If climate change adaptation is regarded by a majority of local actors as important, cooperation between stakeholders towards the implementation of climate change adaptation measures should be strengthened by either exploiting the existing canon of social norms, or if these are not favorable to the envisaged changes, find ways to positively reevaluate these norms. Of course such a process takes time, effort and willingness by the respective individuals and groups to reflect upon their positions and thereafter, if necessary, to change their ways of interaction. In addition, sanctioning schemes might be required in order to push defecting individuals to contribute to cooperative initiatives supported by a majority. In rather homogeneous societal settings – as can be found in most alpine regions – rather subtle mechanisms such as those based upon individual reputation, might be more effective than for example money-based penalties (see e.g. Ostrom, 1990).

## Conclusion

- <sup>14</sup> As we have seen in the preceding chapters, there are various factors influencing the implementation of cooperative adaptation actions in the context of climate change in the Alps. Whether or not such adaptation measures can be realized successfully while integrating a maximum of actors depends on the one hand upon the social structures which are in place in the respective region as well as on the attitudes of the actors in the region, and how these actors can handle and react to change. As we have seen, both influences, those regarding the patterns of social and economic interaction as well as those regarding individual attitudes and motivations for action, are tightly interwoven. For the issue at hand this is one major insight, and at the same time a relative drawback. One has to recognize that structural barriers to cooperation cannot be easily overcome. In fact, this explorative piece of work has clearly shown that if we want to persistently influence and ameliorate the way actors in regional tourism supply systems cooperate with each other, it will not suffice to solely change the structural foundations of the production system in order to foster cooperation, which is in fact difficult enough, but that the individual attitudes must be in line with the envisaged goal as well, while the actions of the individuals once again have a major influence on how the system as a whole functions.
- <sup>15</sup> In order to better understand the interdependency between the social and economic structures in place on the one hand and the activities of individual actors on the other, it will be of great importance for social scientists to come up with sound theoretical approaches taking account the organizational complexity of regional production systems, as for example in tourism, while developing a toolkit of empirical methods in order to deal with the functional interdependency between individual actors and the properties of the system they take action in. Structural concepts such as social resilience and the application of complexity theory to socio-economic issues certainly point in the right direction, but must be complemented by more action-related research efforts based e.g. on actor-network theory, social network analysis, behavioral studies or social science experiments.

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## ABSTRACTS

Climate change is an imminent challenge for many alpine tourism destinations. While the effects of changing climatic patterns are well documented with respect to the physical geographical sphere, research into the effects of climate change upon the regional socio-economic systems in the Alps is still rare. What is almost entirely missing is conceptual work identifying possible path-ways towards the implementation of adaptation measures with respect to climate change (see as one notable exception the contribution by Richard et al. 2010 in the last issue of the RGA). It is in this context that the paper at hand wishes to make a contribution by showing where the main barriers towards the successful implementation of adaptation measures lay. Theoretically, the paper builds upon distinct psychological and sociological concepts related to the actor-structure duality as suggested by structuration theory, while the Alps serve as the geographical frame of reasoning for the conceptual debate brought forward within the paper.

## INDEX

**Keywords:** alpine tourism, climate change, socio-economic cooperation, structuration theory

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